

Application No. 10/805,983
Attorney Docket No. 2004B022
Reply to Office action dated March 5, 2007
Response dated June 28, 2007

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REMARKS

Claims 1-11 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Applicant traverses this rejection.

In particular, the Examiner states that “the metes and bounds of an oxygenate-to-olefin reaction system is not clear. However, in the paragraph below this objection on page 3 of the Office Action, the Examiner states what the oxygenate to olefins reaction is. The Applicant has clearly described this reaction at paragraphs [0024] to [0035], which converts oxygenated hydrocarbon such as methanol, ethanol and dimethyl ether to olefins such as ethylene and propylene. The Applicant thus contends that it is clear what this reaction entails and those skilled in the art would readily understand the reaction. Withdrawal of this rejection is requested.

The Examiner also states that “derivative product” as claimed is not understood. The “derivative product” is amended to state “non-polymerization derivative product.” This term is described in paragraph [0014] to [0015] of Applicant’s specification. Some examples of non-polymerization derivative products are acrylonitrile and acetone. The term excludes polymerization products such as polyethylene and polypropylene. The Applicant thus contends that it is clear what this term entails and those skilled in the art would readily understand the described class of compounds. Withdrawal of this rejection is requested.

Claims 1, 3, 5-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, and claims 1-11 stand rejected under § 103(a) as being unpatentable over, US 2003/0045761 A1 to *Kuechler et al.* (“Kuechler”). The Applicant traverses this rejection.

Kuechler describes a process whereby the olefin stream from an OTO reaction are highly refined to a point where oxygenates are less than 10 ppm of the composition (see paragraph [0091]), followed by treatment in an “olefin reaction unit” that includes a “polyolefin forming catalyst” (see paragraphs [0021]-[0022]) to form “derivative products” such as polypropylene or

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polyethylene (see paragraph [0022]). The high purity of the stream is achieved by hydrogenation or use of molecular sieve catalysts or other means as described by *Kuechler* at [0088] to [0090]. Suitable catalysts to form the derivative products of *Kuechler* include Ziegler-Natta and metallocene catalysts (see paragraph [0101]).

The present invention claims a process whereby the olefin product stream of an OTO process, which is known to include both olefins and oxygenates, is passed relatively unpurified into a derivative process reactor to form "non-polymerization derivative products," such products being named in Claim 1. Suitable catalysts to form the "non-polymerization derivative products" include bismuth compounds and other metal compounds as described at paragraph [0059]; chlorine and calcium hydroxide used to form such compounds as propylene oxide; epoxidation reactions using molybdenum salts or titanium silicates; rhodium compounds to perform hydroformylation reactions, and other catalysts described in the specification from paragraphs [0056] to [0146]. Catalysts used to form polypropylene and polyethylene, being highly sensitive to the presence oxygenated compounds, are not included.

Given the distinction between *Kuechler* and the present invention as claimed, the applicant requests the withdrawal of this rejection.

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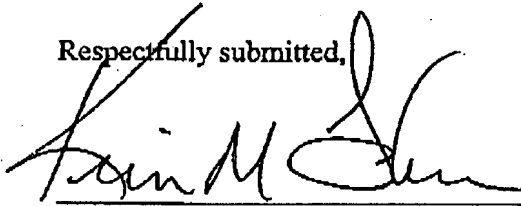
CONCLUSION

Applicants believe that the foregoing is a full and complete response to the Office Action of record. For the foregoing reasons, Applicants submit that the present claims meet all the requirements for patentability. Accordingly, an early and favorable reconsideration of the rejection, and allowance of pending claims 1-11 is requested.

The Commissioner is hereby authorized to charge Applicant's Deposit Account No. 05-1712 (Docket #: 2004B022), for any fees, including extension of time fees and excess claim fees, required to make this response timely and acceptable to the Office.

Date: 6/28/07

Respectfully submitted,



Kevin M. Faulkner
Registration No. 45,427

Post Office Address (to which correspondence is to be sent):

ExxonMobil Chemical Company

Law Technology

P.O. Box 2149

Baytown, Texas 77522-2149

Telephone No. (281) 834-2866

Facsimile No. (281) 834-2495